

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	)
Reassessment of Federal Communications	)	ET Docket No. 13-84
Commission Radiofrequency Exposure Limits and	)	
Policies	)	
Proposed Changes in the Commission's Rules	)	ET Docket No. 03-137
Regarding Human Exposure to Radiofrequency	)	
Electromagnetic Fields	)	
	)	

To: Office of the Secretary  
Federal Communications Commission  
Washington, DC 20554

Comment Filed by: Peter Sierck  
1106 Second Street  
Encinitas, CA 92024 USA  
[PSierck@ETandT.com](mailto:PSierck@ETandT.com)  
760-804-9400

August 29, 2013

## **AFFIDAVIT OF PETER SIERCK**

State of California, San Diego County, USA

I, Peter Sierck, attest that my statements are true to the best of my knowledge.

**Comment** round for FCC ET Docket No. 013-84 and ET Docket No. 03-137

1. My name is Peter Sierck. My address is 1106 Second Street, Encinitas, CA 92024
2. I am an industrial hygienist and have conducted radio frequency (RF) surveys since 1988.
3. The types and amplitudes of RF emissions have significantly changed over the last three decades. New signal types, such as digital, pulsed, frequency hopping; CDMA, WLAN and LTE have entered the market and significantly changed and increase the overall exposure to the general public.
4. Numerous scientific studies have shown that none-thermal biological effects exist. Listed below is a small selection of these studies.

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*Hutter HP, Moshammer H, Wallner P, Kundi K (2006): Subjective symptoms and cognitive performance in subjects living near mobile phone base stations. Occup. Environ. Med 63, 307 – 313.*

*Augner C, Hacker GW, Oberfeld G, Florian M, Hitzl W, Hutter J, Pauser G (2010): Effects of exposure to GSM mobile phone base station signals on salivary cortisol, alpha-amylase, and immunoglobulin A., Biomed Environ Sci. 23 (3), 199-207.*

*Altpeter ES, Röösli M, Battaglia M, Pfluger D, Minder CE, Abelin T* (2006): Effect of Short-Wave (6 – 22 MHz) Magnetic Fields on Sleep Quality and Melatonin Cycle in Humans: The Schwarzenburg Shut-Down Study, *Bioelectromagnetics* 27, 142 – 150.

*Navarro EA, Segura J, Portolés M, Gómez-Perretta de Mateo C* (2003): The microwave syndrome: A preliminary study in Spain, *Electromagnetic biology and medicine* 22(2 & 3), 161-169.

*Eger H, Jahn M* (2010): Spezifische Symptome und Mobilfunkstrahlung in Selbitz (Bayern) – Evidenz für eine Dosiswirkungsbeziehung, *umwelt · medizin · gesellschaft* 23(2), 130-139.

*Abdel-Rassoul G, El-Fateh OA, Salem MA, Michael A, Farahat F, El-Batanouny M, Salem E* (2007): Neurobehavioral effects among inhabitants around mobile phone base stations. *NeuroToxicology* 28(2), 434-440.

*Semm P, Marhold S, Holtkamp-Rötzler E, Dombek KP und Beason RC* (1996): Neuronal responses to low intensity electromagnetic fields at 900 MHz. In Kongressband der Europäischen Telemetrie Konferenz, 21. – 23.5. 1996 in Garmisch-Partenkirchen.

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*Salford LG, Brun AR, Eberhardt JL, Malmgren L, Persson BRR* (2003): Nerve cell damage in mammalian brain after exposure to microwaves from GSM mobile phones. *Environ Health Persp* 111, 881-883.

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*Salford LG*, More probable than unlikely, that non-thermal electromagnetic fields from mobile phones and base stations do have effects upon the human brain. Tagungsband (Hrsg: *Margaritis LH*): 1st Hellenic Congress on the effects of electromagnetic radiation with international participation , Mai 2008, Thessaloniki, Greece.

*Salford LG, Nittby H, Brun A, Eberhardt J, Malmgren L, Persson BRR* (2010): Effects of microwave radiation upon the mammalian blood-brain barrier. In.: ICEMS Monograph “Non-thermal effects and mechanisms of interaction between electromagnetic fields and living matter. Bologna, Italy, 2010, published in: Eur. J. Oncol. Library 5 (2010), 333 – 355.

*Eberhardt JL, Persson BRR, Brun AE, Salford LG, Malmgren LOG* (2008): Blood-brain barrier permeability and nerve cell damage in rat brain 14 and 28 days after exposure to microwaves from GSM mobile phones, Electromagnetic Biology and Medicine 27, 215-229.

*Adlkofer F, Diem E, Schwarz C, Jahn O, Rüdiger H* (2005): Non-thermal DNA breakage by mobile-phone radiation (1800 MHz) in human fibroblasts and in transformed GFSH-R17 rat granulosa cells in vitro. Mutat. Res. 583 (2), 178 – 183.

*Xu S, Zhong M, Zhang L, Zhou Z, Zhang W, Wang Y, Wang X, Li M, Chen Y, Chen C, He M, Zhang G, Yu Z* (2009): Exposure to 1800 MHz radiofrequency radiation induces oxidative damage to mitochondrial DNA in primary cultured neurons and brain.

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*Dode AC, de Leão MMD, de A. F. Tejo F, Gomes ACR, Daiana C. Dode DC, Dode MC, Moreira CW, Condessa VA, Albinatti C, Caiaffa WT* (2011): Mortality by neoplasia and cellular telephone base stations in the Belo Horizonte municipality, Minas Gerais state, Brazil, Science of the Total Environment 409 (19), 3649 – 3665.

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BIOINITIATIVE Report: A rationale for abiotically-based public exposure Standard for electromagnetic fields (ELF and RF), August 31, 2007. [www.bioinitiative.de](http://www.bioinitiative.de).

5. I strongly support that the FCC reduce the maximum permission exposure (MPE) level for the General Public.
6. Many other countries have taken this step and reduced their MPE significantly. Examples are: India, China, Russia, Italy, Belgium, Switzerland, Luxenburg and Liechtenstein. The USA needs to follow suit.
7. To ascertain that only thermal effect exist and to discredit non-thermal effect studies is ignoring scientific evidence which should be followed up.
8. The FCC's current RF safety guidelines do not take into account the published research on the biological effects. This needs to change.

Respectfully submitted by  
Peter Sierck  
1106 Second Street  
Encinitas, CA 92024  
August 29, 2013

A handwritten signature in black ink, appearing to read "P. Sierck".